An Inaugural Dissertation On Hæmaturia.

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On Hæmaturia.

The diagnosis of Hæmaturia is naturally attended with but little difficulty; since the external appearance of the blood, renders the case at once evident.

The urine does sometimes, however, put on appearances resembling very much as if blood were mixed with it, without this being the case; As for instance, in inflammatory fever, it often acquires a deep red colour, and in typhus, it has been voided of a dark brown or almost black appearance. The urine, moreover, sometimes acquires an appearance, resembling the admixture of blood with it, from the articles of diet used; such as raspberries, red beets, the fruit of the Cactus Opuntia;* or from the medical use of rhubarb, logwood, balsam Peru &c.

By proper attention however, these latter appearances may be distinguished from bloody

* Richter

urine, without much difficulty. There is much more difficulty in ascertaining the precise source of the bleeding, whether it proceeds from the kidnies, ureters, bladder, vesicula seminalis, or the urethra. I will take up each of these varieties in turn.

1st. When the blood proceeds from the urethra. In this case the blood passes off pure and unmixed with the urine; in which it varies from the hæmorrhages that proceed from the kidnies, ureters, and bladder, where the blood is always evacuated mixed with urine: and often attended with considerable difficulty of micturition.

The remaining symptoms vary according to the causes that produce the disease, and according to the part of the urethra from which the bleeding proceeds. If bleeding from the urethra, arises from some anomaly in the hæmorrhoidal disease, it is generally somewhat periodical in its appearances. In this case it is preceded by pains, burning, and

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and an itching in the urethra and anus, with a spasmodic pain of the thighs, and sometimes a temporary suppression of urine. In this case the bleeding comes almost always from near the neck of the bladder. Such a haemorrhoidal Stymatosis may, by recurring for a long time, become habitual, and then it will occur without pain on any slight exertion.

In Gonorrhœa, there is frequently a bleeding from the urethra, especially when there is chordee. It is also induced by violent erections, pollution, and excessive venery. Commonly, the bleeding here, is but trifling, occasioning but a slight streaking, or discoloration of the natural mucus of the urethra; occasionally, however, the bleeding becomes strong and proceeds to an alarming length. (Bell on the venereal) — Finally bleeding from the urethra may arise from external violence: by the awkward introduction of catheters and bougies &c.

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2nd The hæmorrhage may proceed from the seminal vessels. In this as in the former variety the blood passes off without micturition. Here however the flow of blood, is attended with a sense of venereal pleasure; it generally passes off intimately mixed with the semen, but may also appear pure and unmixed, after excessive venery or onanism.

3rd The blood may proceed from the ureters. Here the patient complains of pain and tension along the course of the ureters, and the blood, always passes off in very small quantities. The Diagnosis, is however, without doubt in these cases, always attended with uncertainty. The blood may pass from the kidnies, and in its passage through the ureters may produce pain in them. Practically, however, this is of no importance.

4th Hæmorrhage from the bladder.

This is to be distinguished from renal

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hæmorrhage, by the sensations of uneasiness, or pain being felt in the region of the bladder. There are commonly, also present, painful erections, burning in the glans penis, or in the whole of its body, general spasmodic affections, cold extremities, fainting, and in general all the symptoms of a slight inflammation of the bladder. The blood is not very intimately mixed with the urine; but swims like flakes or clouds in it; and settles down soon after it is voided, into a coagulum. It is generally, of a blackish appearance and coagulated when voided; but does also sometimes pass off uncoagulated, and quite pure without any admixture of urine. Hæmorrhage from the bladder is often preceded by a discharge of mucus from the urethra.

5th Bleeding from the kidnies.

The blood is here very intimately mixed with the urine, when voided. There are no

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flakes of coagulated blood seen swimming in the urine; this presents a uniformity in colour and consistence. After the urine has stood for some time in a vessel, the blood is deposited on the bottom in a soft and mushy mass, resembling red meal. The patient feels no uneasiness in the bladder, but a goodeal in the region of the kidnies; such as spasmodic pains in the loins, and near the spine immediately over the kidnies; there is also retraction of the testicle, numbness of the thigh and leg. Ischuria, strangury and even total suppression of urine sometimes appear in this case, and in general all the symptoms indicative of a slight inflammation of the kidnies are to be noticed.

The predisposition to this disease, depends upon a peculiar weakness of the parts, or a relaxation of the vessels of the kidnies especially when the bleeding proceeds from these parts, which may be natural or acquired, at any

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period of life; and without which, the greater number of occasional causes, are not readily capable of exciting the disease. A disposition to this complaint, is particularly apt to come on in very old people; and hence we see these so readily affected with bloody urine, or bleeding from the urethra, upon the action of any slight occasional cause.

Urinary and renal calculi, are without doubt the most frequent occasional cause of bloody micturition; especially, when the system has been excited by the misuse of ardent spirits, or any violent exercise, such as riding on horse=back or in a rough carriage. These calculi, when they stick fast in the ureters are perhaps the sole causes that can ever produce bleeding from these parts.

Where the predisposition, however is strong the disease may without the presence of calculi irritating the urinary organs, arise from any

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violent exertions, such as lifting or carrying heavy burthens; violent exertions in venery, a fall, or blow upon the region of the kidnies &c.

Robust, plethoric and fat women, advanced in years, especially about the period when the menses cease to appear, are very liable to bloody urine after overheating themselves, or by using too rich and nutritious a diet. In those who are predisposed to such bleedings it is not uncommon to meet with bloody urine in inflammatory fever, as well as in the worst cases of typhus, in which latter disease it always indicates much danger. In scorbutic affections it may also appear, especially in their most aggravated form.

When the vessels of the kidnies are possessed of a morbid state of irritability, substances which act upon these organs may readily produce bloody urine. In such a state of the kidnies, bloody urine, has also been known to be produced by the irrita=
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of bile, worms and other irritating matters in the bowels. Particular articles of diet or other things acting as slight diuretics, have likewise frequently induced this complaint, when the kidnies have been very much relaxed, or subject to the influence of irritation. Among these are, asparagus, garlic, onions, turpentine balsams &c.

The more active diuretics when given in immoderate doses, will sometimes, without a predisposition to the complaint, produce bloody micturition. Of these the Cantharides most frequently produces this effect. Children during dentition sometimes pass bloody urine, without any further evil consequences.

Finally the complaint, I am speaking of may also arise from organick affections of the kidnies and the bladder, such as scirrhus, cancer, swelling of every kind, suppuration &c.

From the variety of causes taken notice of; it is readily to be understood that the symptoms,

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duration, cause, and the more or less frequent recurrence of the disease, must also be exceedingly various.

The Prognosis

When the blood proceeds from the urethra, the danger is much less than when it issues from the bladder or kidnies; partly on account of its being generally less in quantity; and partly because, it is not so often the consequence or the cause of dangerous organic affections. The voiding of bloody urine, does seldom become dangerous on account of the quantity of blood lost, it is however generally followed by death, when it occurs, as a symptom in putrid fevers, scorbutus, and in very old people. Bloody micturition, is dangerous in proportion to the general debility of the system, and the local atony or relaxation of the kidnies. Hence the danger of habitual bloody urine in old age, which generally leads on to

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dropsy or a slow fever. When the causes that produce it act violently and are not readily, or not at all, to be removed the prognosis becomes unfavourable; and hence in hæmaturia from calculi, ulcers, or indurations in the kidnies, ureters or bladder, the prognosis is bad. In typhus, scarlatina, and small pox, bloody urine, we are informed by Sydenham, is almost always a fatal symptom. When it proceeds from the misuse of diuretic articles of food or medicine hæmaturia is not often attended with danger.

Those who have once passed bloody urine, are very readily affected in the same way again. If the blood coagulates in the kidnies, ureters, or bladder, violent spasmodic pains and dangerous suppression of urine may be the consequence. Such coagulations, serving as a nucleus, may also, lay the foundation, of calculi. —

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Treatment

The treatment of Hæmaturia, varies according to the causes which have given rise to it. If great weakness or relaxation of the vessels of the kidnies has given rise to this complaint, as is very often the case in old people; or when after debilitating causes, such as excess in venery, violent shaking of the body by riding on horseback or in a waggon, blood is passed with the urine without occasioning any particular sensation of pain, we will frequently succeed in removing the disorder by exhibiting gentle astringents, such as Uva Ursi, decoction of peach leaves, alum whey; or when the case is violent alum given in substance together with gum Arb. or decoctions made of cinchona, logwood, simiroubа &c. The chalybiate mineral waters, are also in such cases often very efficacious. Hoffman recommends, as especially efficacious a decoction of agrimonia and consolida major. —

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If the hæmorrhage becomes so copious, as to render an immediate interposition of medical aid necessary, we may resort to the external application of cold water, or even snow to the region of the kidnies and pubis; and if the bleeding comes from the urethra, we may use the injection of very cold water: Internally under such urgent circumstances we must exhibit in large doses sacch: Saturn: kino, alum &c. The mineral acids have also been recommended as useful in these cases.—

After a spell of bloody urine, in order to prevent a recurrence of the disease, we must endeavour, to strengthen the kidnies. To this a milk diet contributes in an especial manner, Burserius states that by such a diet alone he succeeded more than once in relieving this complaint. But the most efficacious remedies in this place are the mineral waters impregnated with iron and fixed air. In addition to these prophylacticks, every occasional cause must be

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removed or avoided as much as possible. The patient must not ride a rough horse, nor even walk very fast, he must avoid using such articles of diet as stimulate the kidnies, as onions, asparagus, garlic, parsley &c nor use strong and heating drinks. During the presence of the disorder, the patient must use mucilaginous drinks, and a mild farinacious diet, such as barley water, flaxseed tea, rice, saga, or weak animal broths.

When the disease arises from a chemical or mechanical irritating cause in the kidnies or urinary bladder; we must use freely oily and slimy remedies, such as ol: olivar: gum arabic &c and even antispasmodick articles, such as Ipecacuanha in small doses; Hyosciamus or opium. In these cases, anodyne embrocations, warm applications and soothing injections are often of considerable service.

If there is an inflammation present in the kidnies and bladder, together with general plethora, a circumstance

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which frequently occurs from the suppression of the hæmorrhoidal or menstrual flux, we must use vigorously both topical and general bleeding; and exhibit mucilaginous drinks copiously; in such cases however, we cannot use the common antiphlogistic remedy, sal nitre, as this is calculated, in a considerable degree to irritate the urinary organs.

When bloody urine, is brought on by cantharides, we must use camphor in emulsion, together with copious draughts of some mild and mucilaginous drinks. Where acrid and irritating matters lodged in the intestinal canal produce this disorder, as it sometimes happens in children, cathartics and anthelminthicks are the remedies to be resorted. Bleeding from the penis, does not very often require any particular care. If however it becomes violent, we may direct the penis and scrotum to be immersed in cold water which is generally effectual in giving immediate relief.

Dysentery
Enteritis
Diarrhœa
Erysipelas
Phlegmatia
Hysteria
&c